

WHAT IS CLAIMED IS:

1. A method of purifying used oil comprising the steps of:
 - providing a predetermined quantity of used oil;
 - contacting the used oil with a predetermined quantity of a base;
 - contacting the used oil with a predetermined quantity of a phase transfer catalyst;
 - mixing the composition comprising used oil, base, and phase transfer catalyst for a predetermined period of time;
 - heating the composition to a predetermined temperature;
 - distilling the resultant mixture;
 - mixing the resulting distillate with a solvent thereby dissolving the contaminants from the petroleum distillate into the solvent;
 - separating the solvent having the contaminants dissolved therein from the petroleum distillate;
 - subsequently separating the contaminants from the solvent and recovering the solvent;
 - recovering any remaining solvent from the petroleum distillate; and
 - reusing the recovered solvent to extract contaminants from subsequent quantities of petroleum distillate.
2. The method of Claim 1 wherein the distilling step removes water and catalyst and produces base lubricating oil from the mixture.
3. The method of Claim 1 wherein the distilling step produces at least two base lubricating oil cuts, and wherein the subsequent mixing step is carried out by separately mixing each of the base lubricating oil cuts with the solvent.